Chart 97146 NM 47/99

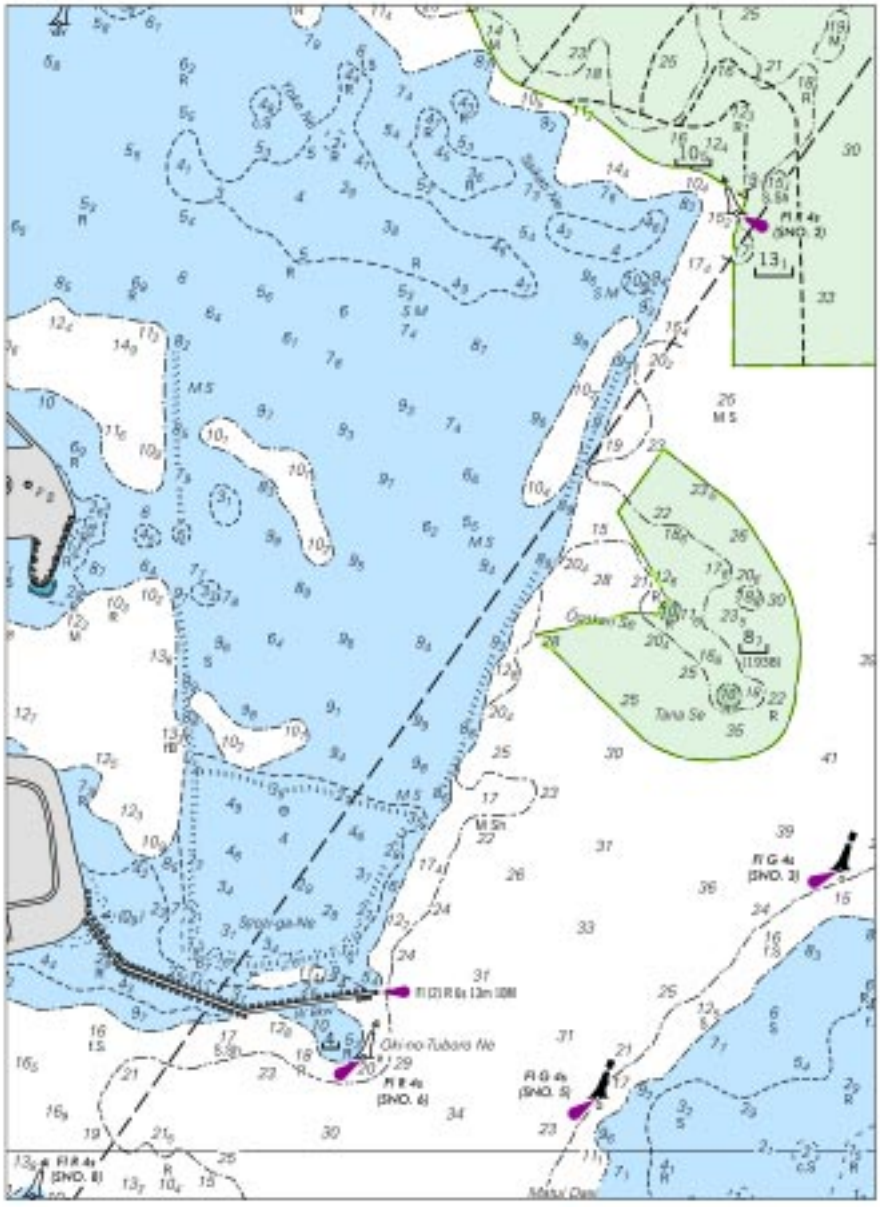

CHART 18740 NM 47/99

NOTE M
NAVAL OPERATING AREA

Vessels should use caution while transiting this area due to naval test operations which involve frequent maneuvers in the vicinity of and around this location.

CHART 18765 NM 47/99

NOTE C
NAVAL OPERATING AREA

Vessels should use caution while transiting this area due to naval test operations which involve frequent maneuvers in the vicinity of and around this location.

CHART 18766 NM 47/99

NOTE
NAVAL OPERATING AREA

Vessels should use caution while transiting this area due to naval test operations which involve frequent maneuvers in the vicinity of and around this location.

CHART 19340 NM 47/99

NOTE F
NAVAL OPERATING AREA

Vessels should use caution while transiting this area due to naval test operations which involve frequent maneuvers in the vicinity of and around this location.

CHART 19357 NM 47/99

NOTE E
NAVAL OPERATING AREA

Vessels should use caution while transiting this area due to naval test operations which involve frequent maneuvers in the vicinity of and around this location.

CHART 19380 NM 47/99

## NOTE C
## NAVAL OPERATING AREA

Vessels should use caution while transiting this area due to naval test operations which involve frequent maneuvers in the vicinity of and around this location

CHART 11466 NM 47/99

LAKE WORTH INLET CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 1999
AND SURVEYS TO MAR 1999

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | MIDDLE HALF OF CHANNEL | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
| ENTRANCE CHANNEL | 36.3 | 36.8 | 36.6 | 3-99 | 400-300 | .72 | 35 |
| LAKE WORTH INNER CHANNEL | 34.5 | 36.3 | 33.3 | 3-99 | 300-500 | .42 | 33 |

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 11470 NM 47/99

PORT EVERGLADES CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEPT 1999
AND SURVEYS TO MAY 1999

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
| OUTER BAR CUT (FROM SEA BUOY 2 TO EAST END OF SOUTH JETTY) | 46.6 | 46.5 | 45.7 | A31.0 | 5-99 | 500-450 | 1.0 | 45 |
| BAR CUT (EAST END SOUTH JETTY TO TURNING BASIN, LT 9) | 40.6 | 44.0 | 44.7 | 43.9 | 5-99 | 450 | 0.5 | 42 |

A. SHOALING TO 27.5 FEET AT 26°05'39.0"N, 80°06'16.5"W.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 12311 NM 47/99

CHRISTINA RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 1999
AND SURVEYS TO SEP 1999

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT CHRISTINA RIVER DATUM | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | MIDDLE HALF OF CHANNEL | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT MILES) | DEPTH (FEET) |
| ENTRANCE CHANNEL TO THE UPPER END OF THE TURNING BASIN | 24.8 | 25.5 | 27.5 | 9-99 | 500-340 | 0.70 | 38 |
| THENCE TO THE LOBDELL CANAL TURNING BASIN (OPPOSITE TERMINAL WHARF) | 34.4 | 23.2 | 30.7 | 9-99 | 400 | 0.33 | 35 |
| | 31.7 | 32.4 | 33.8 | 9-99 | 320 | 0.34 | 38 |

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 12312 NM 47/99

CHRISTINA RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 1999
AND SURVEYS TO SEP 1999

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT CHRISTINA RIVER DATUM | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | MIDDLE HALF OF CHANNEL | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT MILES) | DEPTH (FEET) |
| ENTRANCE CHANNEL TO THE UPPER END OF THE TURNING BASIN | 24.8 | 25.5 | 27.5 | 9-99 | 500-340 | 0.70 | 38 |
| THENCE TO THE LOBDELL CANAL TURNING BASIN (OPPOSITE TERMINAL WHARF) | 34.4 | 23.2 | 30.7 | 9-99 | 400 | 0.33 | 35 |
| | 31.7 | 32.4 | 33.8 | 9-99 | 320 | 0.34 | 38 |

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 12324 NM 47/99

SANDY HOOK BAY, SHREWSBURY AND NAVESINK RIVERS CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO SEPT 1998

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)

| NAME OF CHANNEL | DEPTH MLLW (FEET) | WIDTH (FEET) | DATE OF SURVEY |
|---|---|---|---|
| SANDY HOOK BAY | | | |
| TERMINAL CHANNEL | 44.0 | 400 | 2-97 |
| SHREWSBURY RIVER | | | |
| HIGHLANDS REACH | 9.0 | 150 | 9-98 |
| RUMSON REACH | 9.0 | 150 | 9-98 |
| LONG BRANCH REACH | 6.1 | 150 | 9-98 |
| NAVESINK RIVER | | | |
| BARLEY POINT REACH | 5.8 | 150 | 9-98 |
| FAIR HAVEN REACH | | | |
| (PARTIALLY NATURAL CHANNEL) | 4.8 | 150 | 9-98 |
| RED BANK REACH | 4.5 | 150 | 9-98 |

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGING CONDITIONS SUBSEQUENT TO THE ABOVE

CHART 12327 NM 47/99

ARTHUR KILL, KILL VAN KULL, NEWARK BAY, PASSAIC AND HACKENSACK RIVERS CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS- REPORT OF JUN 1999 AND SURVEYS TO MARCH 1999

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)

| NAME OF CHANNEL | DEPTH MLLW (FEET) | WIDTH (FEET) | DATE OF SURVEY |
|---|---|---|---|
| ARTHUR KILL (OUTERBRIDGE REACH | | | |
| TO N. OF SHOOTERS I. REACH) | A18.8 | 800-500 | 12-92;1-93 |
| KILL VAN KULL (CONSTABLE HOOK | | | |
| REACH TO BERGEN PT. WEST REACH) | 34.0 | 2000-800 | 12-96;2-97 |
| S. OF SHOOTERS I. REACH | B5.0 | 400 | 8-90 |
| NEWARK BAY (NEWARK BAY S. | | | |
| REACH TO DROYERS PT. REACH) | C17.0 | 1750-300 | 3-99 |
| PASSAIC RIVER (KEARNY PT. REACH | | | |
| TO ARLINGTON REACH) | D,E0.8 | 300-200 | 6,11-89;2,3-98 |
| HACKENSACK RIVER (DROYERS PT. | | | |
| REACH TO TURNING BASIN) | 14.7 | 300-800 | 3-99 |

A. A DEPTH OF 32.5 FEET WAS AVAILABLE IN THE MIDDLE HALF.
B. OBSTUCTIONS INTERSPERSED IN THE TWO RIGHT QUARTERS. THERE IS A MINIMUM DEPTH OF 5.9 FEET OVER WRECKAGE.
C. A DEPTH OF 22.4 FEET WAS AVAILABLE IN THE MIDDLE HALF. EXCEPT FOR SHOALING TO 9 FT AT 40° 42' 11.4" N 74° 06' 56.1" W.
D. A DEPTH OF 6.5 FEET WAS AVAILABLE IN THE MIDDLE HALF.
E. SHOALING TO BARE ALONG THE LEFT OUTSIDE QUARTER AT THE TURN AT 40°45'43"N, 74°09'49"W.

NOTE 1. SEE LARGE SCALE CHARTS FOR MORE DETAIL OF REACHES.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGING CONDITIONS SUBSEQUENT TO THE ABOVE

CHART 12327 NM 47/99

NEW YORK HARBOR - LOWER BAY - CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JULY 1999
AND SURVEYS TO JUNE 1999

| NAME OF CHANNEL | CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | DATE OF SURVEY | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
| AMBROSE CHANNEL | 40.3 | 44.7 | 44.9 | 28.4 | 9-95 | 2000 | 9.2 | 45 |
| SANDY HOOK CHAN. (EAST) A | 39.7 | 41.9 | 40.0B | 32.0 | 3-99 | 800 | 3.5 | 35 |
| SANDY HOOK CHANNEL | 23.6 | 39.4 | 35.7 | 35.4 | 3-99 | 800 | 2.4 | 35 |
| CHAPEL HILL: | | | | | | | | |
| SOUTH CHANNEL | 29.2 | 30.2 | 30.3 | 27.5 | 4,5-99 | 1000 | 2.7 | 30 |
| NORTH CHANNEL | 29.4 | 29.4 | 29.3 | 27.9 | 4,5-99 | 1000 | 1.8 | 30 |
| TERMINAL CHANNEL | 44.2 | 45.7 | 46.0 | 44.0 | 2-97 | 400 | 0.8 | 35 |
| KEYPORT HARBOR CHANNEL | 4.5 | 6.6 | 6.6 | 5.8 | 4,5-99 | 200 | 0.9 | 8 |
| RARITAN BAY EAST REACH | 35.6 | 38.0 | 37.3 | 33.9 | 11-97 | 600 | 4.0 | 35 |
| RARITAN BAY WEST REACH | 34.0 | 39.4 | 39.3 | 34.7 | 11-97 | 600 | 2.4 | 35 |
| SEGUINE POINT BEND | 30.2 | 36.3 | 39.0 | 30.6 | 11-97 | 600-800 | 1.2 | 35 |
| RED BANK REACH | 35.5 | 41.1 | 41.3 | 35.0 | 11-97 | 600 | 1.2 | 35 |
| WARD POINT BEND (EAST) | 32.7 | 35.9 | 37.7 | 32.1 | 11-97 | 600-800 | 1.1 | 35 |
| WARD POINT BEND (WEST) | 35.5 | 35.2 | 35.6 | 34.6 | 11-97 | 600-800 | 0.8 | 35 |
| RARITAN RIVER CUT OFF | 16.7 | 19.3 | 19.3 | 11.6 | 3-99 | 600-1100 | 1.0 | 20 |
| WARD POINT SECONDARY CHANNEL | 23.6 | 22.7 | 22.5 | 21.9 | 3-93 | 400 | 0.9 | 30 |
| GREAT BEDS REACH | 13.1 | 15.9 | 17.2 | 18.4 | 6,7-98 | 300 | 0.6 | 25 |
| SOUTH AMBOY REACH | 14.6 | 18.4 | 18.2 | 15.9 | 6,7-98 | 300 | 1.2 | 25 |

A. THE NAVAL FACILITIES ENGINEERING COMMAND MAINTAINS A 45 FOOT PROJECT FOR A WIDTH OF 600 FEET IN SANDY HOOK (EAST) TO THE TURNING BASIN.
B. DEPTH FROM NOS FIELD SURVEY AT 40°28'57" 73°59'36".
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 12337 NM 47/99

NEWARK BAY,PASSAIC AND HACKENSACK RIVERS CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 1999
AND SURVEYS TO MARCH 1999

| NAME OF CHANNEL | CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | DATE OF SURVEY | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
| NEWARK BAY MIDDLE REACH | 36.9 | 40.6 | 37.6 | 34.6 | 3-99 | 1750-500 | 1.4 | 40 |
| NEWARK BAY NORTH REACH | 28.1 | 35.1 | 22.8 | A18.0 | 3-99 | 900-500 | 1.1 | 35 |
| TURNING BASIN | 24.3 | 25.4 | 22.4 | A17.0 | 3-99 | 900 | 0.26 | 35 |
| PASSAIC RIVER: | | | | | | | | |
| KEARNY PT REACH | 17.5 | 18.9 | 17.3 | 13.6 | 3-99 | 300 | 1.1 | 30 |
| POINT NO POINT REACH | 5.4 | 9.7 | 13.5 | 10.2 | 6-89; 3-99 | 300 | 1.1 | 30 |
| HARRISON REACH | 1.7 | 6.5 | 8.4 | 2.6 | 6-89 | 300 | 1.9 | 20 |
| NEWARK REACH | 1.2 | 8.2 | 9.5 | 4.3 | 6-89 | 300 | 1.3 | B20 |
| KEARNY REACH | C0.8 | 8.8 | 8.2 | 1.2 | 6-89 | 300 | 0.9 | B20 |
| ARLINGTON REACH | 2.0 | 6.8 | 9.1 | 2.5 | 6,11-89 | 200 | 0.9 | 16 |
| BELLEVILLE REACH | 0.1 | 0.4 | 8.0 | 9.9 | 6-92 | 150 | 1.4 | 10 |
| NUTLEY REACH | 2.6 | 9.2 | 7.4 | 3.5 | 11-89 | 150 | 1.7 | 10 |
| RUTHERFORD REACH | 1.7 | 5.1 | 3.8 | 3.7 | 11-89 | 150 | 2.2 | 10 |
| WALLINGTON REACH | D2.2 | 1.5 | 1.9 | E1.1 | 11-89 | 150 | 0.9 | 10 |
| HACKENSACK RIVER: | | | | | | | | |
| DROYERS POINT REACH | 25.5 | 28.8 | 25.5 | 19.8 | 3-99 | 300-400 | 1.5 | 30 |
| MARION REACH | 20.8 | 28.0 | 27.6 | 20.3 | 3-99 | 300 | 1.8 | 30 |
| TURNING BASIN | 14.7 | 24.1 | 28.3 | 21.4 | 3-99 | 300-800 | 0.2 | 25 |
| PORT NEWARK CHANNEL: | | | | | | | | |
| BRANCH CHANNEL | 36.9 | 37.9 | 36.8 | 35.8 | 3-99 | 1050-400 | 0.4 | 40 |
| INSHORE CHANNEL | 38.4 | 38.9 | 38.3 | 36.3 | 3-99 | 400 | 1.1 | 35 |
| PIERHEAD CHANNEL | 36.5 | 37.4 | 35.9 | 36.0 | 3-99 | 300 | 0.7 | 40 |

A. EXCEPT FOR A SHOAL TO 9 FT AT 40° 42' 11.4" N 74° 06' 56.1" W ALONG THE RIGHT OUTSIDE QUARTER OF THE REACH.
B. PROJECT CHANNEL, 20 FEET DEEP, HAS NEVER BEEN DREDGED. DEPTHS SHOWN ARE FOR EXISTING CHANNEL.
C. EXCEPT FOR A SHOAL, BARE AT M.L.L.W., ALONG THE LEFT OUTSIDE QUARTER OF THE LAST 380 YARDS OF THE REACH.
D. A SHOAL BARE AT M.L.L.W. EXTENDS ACROSS THE LEFT OUTSIDE QUARTER ABOUT 370 YARDS DOWNSTREAM OF THE EIGHTH STREET BRIDGE.
E. A SHOAL BARE AT M.L.L.W. EXTENDS ACROSS THE RIGHT OUTSIDE QUARTER ABOUT 300 YARDS NORTH OF THE MAIN ST. BRIDGE AND SHOALING TO 0.3 FEET 175 FEET WEST OF THE SECOND ST. BRIDGE.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 12401 NM 47/99

NEW YORK HARBOR-LOWER BAY-CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 1999
AND SURVEYS TO APR-MAY 1999

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
| AMBROSE CHANNEL | 40.3 | 44.7 | 44.9 | 28.4 | 9-95 | 2000 | 9.2 | 45 |
| SANDY HOOK CHAN. (EAST)A | 39.7 | 41.9 | 40.0B | 32.0 | 3-99 | A800 | 3.5 | A35 |
| SANDY HOOK CHANNEL | 23.6 | 39.4 | 35.7 | 35.4 | 3-99 | 800 | 2.4 | 35 |
| CHAPEL HILL: | | | | | | | | |
| SOUTH CHANNEL | 29.2 | 30.2 | 30.3 | 27.5 | 4,5-99 | 1000 | 2.7 | 30 |
| TERMINAL CHANNEL | 44.2 | 45.7 | 46.0 | 44.0 | 2-97 | 400 | 0.8 | 35 |
| RARITAN BAY EAST REACH | 35.6 | 38.0 | 37.3 | 33.9 | 11-97 | 600 | 4.0 | 35 |
| RARITAN BAY WEST REACH | 34.0 | 39.4 | 39.3 | 34.7 | 11-97 | 600 | 2.4 | 35 |

A. THE NAVAL FACILITIES ENGINEERING COMMAND MAINTAINS A 45 FOOT PROJECT FOR A WIDTH OF 600 FEET IN SANDY HOOK (EAST) TO THE TURNING BASIN.
B. DEPTH FROM NOS FIELD SURVEY AT 40°28'57"N, 073°59'36"W REPORTED 10/22/97
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 13241 NM 47/99

NANTUCKET HARBOR
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS-REPORT TO SEPT 1999
AND SURVEYS TO FEB 1998

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | MIDDLE HALF OF CHANNEL | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
| ENTRANCE CHANNEL | 15.3 | 15.0 | 12.5 | 2-98 | 300 | 1.2 | 15 |

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 13242 NM 47/99

NANTUCKET HARBOR
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS-REPORT TO SEPT 1999
AND SURVEYS TO FEB 1998

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | MIDDLE HALF OF CHANNEL | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
| ENTRANCE CHANNEL | 15.3 | 15.0 | 12.5 | 2-98 | 300 | 1.2 | 15 |

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 14839 NM 47/99

CLEVELAND HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 1999

| NAME OF CHANNEL | CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD) | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH LWD (FEET) |
| LAKE APPROACH CHANNEL | 28.6 | 30.9 | 30.4 | 26.4 | 9-98 | 600-750 | 0.22 | 29 |
| ENTRANCE CHANNEL | 24.1 | 26.9 | 29.8 | 27.0 | 9-98 | 225-750 | 0.22 | 28 |
| CUYAHOGA RIVER | | | | | | | | |
| PIER RANGE | 16.5 | 24.9 | 27.3 | 20.0 | 4-99 | 230 | 0.30 | 27 |
| THENCE TO LORAIN | | | | | | | | |
| CARNEGIE VIADUCT BRIDGE | A11.6 | 21.3 | 20.9 | 13.7 | 4-99 | 100-700 | 2.69 | 23 |
| THENCE TO END OF PROJECT | 11.6 | B19.2 | C15.4 | 10.1 | 4-99 | 110-400 | 3.11 | 23 |
| OLD RIVER | | | | | | | | |
| FROM CUYAHOGA RIVER | | | | | | | | |
| TO END OF PROJECT | D12.4 | 18.2 | 17.8 | 11.1 | 4-99 | 125-200 | 1.10 | 27 |
| EAST BASIN | | | | | | | | |
| AIRPORT RANGE | 17.2 | 23.4 | 23.9 | 19.1 | 9-98 | 500 | 3.11 | 25 |
| TURNING BASIN | 24.8 | 23.9 | 24.2 | 23.0 | 9-98 | 400-1600 | 0.33 | 25 |
| EASTERN SECTION | 22.9 | 23.1 | 22.3 | E21.6 | 9-98 | 1250-1540 | 0.72 | 27 |
| WESTERN SECTION | F23.0 | 29.1 | 24.6 | 22.8 | 9-98 | 1300-1540 | 0.28 | 28 |
| WEST BASIN | G21.4 | H22.8 | I22.4 | J23.5 | 9-98 | 1150-1570 | 0.91 | 28 |

A. EXCEPT FOR SHOALING TO 7.4 FEET AT 41°29'31"N,081°41'33"W
B. EXCEPT FOR SHOALING TO 12.3 FEET IN LAST 100 FEET OF PROJECT.
C. EXCEPT FOR SHOALING TO 11.6 FEET IN LAST 100 FEET OF PROJECT.
D. EXCEPT FOR SHOALING TO 10.7 FEET AT 41°29'50"N,081°42'38"W
E. EXCEPT FOR SHOALING TO 17.3 FEET IN OUTSIDE 50 FEET OF QUARTER.
F. EXCEPT FOR SHOALING TO 19.7 FEET IN OUTSIDE 50 FEET OF QUARTER.
G. EXCEPT FOR SHOALING TO 15.0 FEET IN WESTERN 600 FEET OF PROJECT.
H. EXCEPT FOR SHOALING TO 16.6 FEET IN WESTERN 600 FEET OF PROJECT.
I. EXCEPT FOR SHOALING TO 18.4 FEET IN WESTERN 600 FEET OF PROJECT.
J. EXCEPT FOR SHOALING TO 21.3 FEET IN WESTERN 600 FEET OF PROJECT.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 14852 NM 47/99

ST. CLAIR RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS AND PUBLIC WORKS CANADA - SURVEYS TO JUNE 1999

| NAME OF CHANNEL | CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD) | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH LWD (FEET) |
| ST. CLAIR CUTOFF | 23.4 | 26.9 | 26.5 | 21.9 | 9-96; 5,6-99 | 700 | 5.3 | 27 |
| SOUTHEAST BEND | 27.1 | 27.1 | 27.1 | 23.4 | 10-94; 6-97; 7-98 | 700 | 1.0 | 27 |
| SOUTHEAST BEND TO RUSSELL I. | 21.4 | 26.9 | 26.9 | A24.9 | 7-94; 6-97; 7-98 | 700-1000 | 4.3 | 27 |
| RUSSELL I. TO LT BY "37" | B22.6 | 26.6 | 27.3 | 26.5 | 8,9-93; 6-97; 7-98 | 1000 | 3.6 | 27 |
| LT BY "37" TO MARINE CITY | 24.9 | 27.3 | 27.3 | 25.1 | 7-94; 9-96 | 1000 | 4.3 | 27 |
| ST. CLAIR TO STAG I. | C24.4 | 27.3 | 26.4 | 24.2 | 11-93; 7-97;5-99 | 900-1000 | 4.3 | 27 |
| STAG I. TO SARNIA | D20.7 | 27.4 | 25.8 | 25.6 | 9,10-96; 7-97;5,6-99 | 1000-1400 | 7.9 | 27 |

A. SHOALING TO 20.6 FEET AT 42°36'20.0"N, 82°31'24.0"W.
B. SHOALING TO 20.8 FEET AT 42°38'45.0"N, 82°30'44.0"W.
C. SHOALING TO 14.5 FEET AT 42°53'45.0"N, 82°28'21.0"W. AND 21.8 FEET AT 42°49'43.3"N, 82°29'00.5"W.
D. SHOALING TO 14.1 FEET AT 42°58'19.0"N, 82°25'08.5"W. AND 19.8 FEET AT 42°58'17.2"N, 82°25'09.4"W.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 14853 (Page 37) NM 47/99

ST. CLAIR RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS AND PUBLIC WORKS CANADA - SURVEYS TO JUNE 1999

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD) | | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH LWD (FEET) |
| ST. CLAIR CUTOFF | 23.4 | 26.9 | 26.5 | 21.9 | 9-96; 5,6-99 | 700 | 5.3 | 27 |
| SOUTHEAST BEND | 27.1 | 27.1 | 27.1 | 23.4 | 10-94; 6-97; 7-98 | 700 | 1.0 | 27 |
| SOUTHEAST BEND TO RUSSELL I. | 21.4 | 26.9 | 26.9 | A24.9 | 7-94; 6-97; 7-98 | 700-1000 | 4.3 | 27 |
| RUSSELL I. TO LT BY "37" | B22.6 | 26.6 | 27.3 | 26.5 | 8,9-93; 6-97; 7-98 | 1000 | 3.6 | 27 |
| LT BY "37" TO MARINE CITY | 24.9 | 27.3 | 27.3 | 25.1 | 7-94; 9-96 | 1000 | 4.3 | 27 |
| ST. CLAIR TO STAG I. | C24.4 | 27.3 | 26.4 | 24.2 | 11-93; 7-97;5-99 | 900-1000 | 4.3 | 27 |
| STAG I. TO SARNIA | D20.7 | 27.4 | 25.8 | 25.6 | 9,10-96; 7-97;5,6-99 | 1000-1400 | 7.9 | 27 |

A. SHOALING TO 20.6 FEET AT 42°36'20.0"N, 82°31'24.0"W.
B. SHOALING TO 20.8 FEET AT 42°38'45.0"N, 82°30'44.0"W.
C. SHOALING TO 14.5 FEET AT 42°53'45.0"N, 82°28'21.0"W. AND 21.8 FEET AT 42°49'43.3"N, 82°29'00.5"W.
D. SHOALING TO 14.1 FEET AT 42°58'19.0"N, 82°25'08.5"W. AND 19.8 FEET AT 42°58'17.2"N, 82°25'09.4"W.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 18583 NM 47/99

SIUSLAW RIVER

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 1998 AND SURVEYS TO JUL 1999

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | MIDDLE HALF OF CHANNEL | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
| ENTRANCE TO HIGHWAY BRIDGE | 9 | 11 | 9 | 7-99 | 300-200 | 5.0 | 18-16 |
| TURNING BASIN | 10 | 8 | 7 | 7-99 | 400 | 0.3 | 16 |
| TURNING BASIN TO CUSHMAN | 7 | 8 | 8 | 7-99 | 150 | 2.1 | 12 |

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 18587 NM 47/99

COOS BAY AND ISTHMUS SLOUGH CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 1999

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | MIDDLE HALF OF CHANNEL | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
| ENTRANCE RANGE | 41 | 38 | 35 | 7-99 | --- | 1.9 | 47-37 |
| ENTRANCE RANGE AND TURN | 37 | 44 | 30 | 7-99 | 300-1050 | 0.6 | 37 |
| INSIDE RANGE | 31 | 38 | 35 | 7-99 | 300 | 0.6 | 37 |
| COOS BAY RANGE | 32 | 37 | 37 | 7-99 | 300 | 1.6 | 37 |
| EMPIRE RANGE | 34 | 36 | 36 | 7,8-99 | 300 | 1.3 | 37 |
| LOWER JARVIS RANGE | 36 | 37 | 35 | 8-99 | 300 | 0.8 | 37 |
| JARVIS TURN | 35 | 38 | 34 | 8-99 | 300 | 0.5 | 37 |
| UPPER JARVIS RANGE | 32 | 35 | 34 | 8-99 | 300 | 1.9 | |
| NORTH BEND LOWER RANGE | 36 | 37 | 36 | 8-99 | 400 | 0.7 | 37 |
| NORTH BEND RANGE | 38 | 38 | 37 | 5-99 | 400 | 0.9 | 37 |
| NORTH BEND UPPER RANGE | 36 | 37 | 36 | 5-99 | 400 | 0.6 | 37 |
| LOWER TURNING BASIN | 35 | 38 | 34 | 5-99 | 400-800 | 0.3 | 37 |
| FERNDALE LOWER RANGE | 30 | 38 | 38 | 5-99 | 400 | 0.4 | 37 |
| FERNDALE TURN | 26 | 35 | 38 | 5-99 | 400 | 0.2 | 37 |
| FERNDALE UPPER RANGE | A27 | 35 | 36 | 5-99 | 400 | 0.7 | 37 |
| MARSHFIELD RANGE | 32 | 34 | 31 | 5-99 | 400 | 0.4 | 37 |
| MARSHFIELD RANGE TO ISTHMUS SLOUGH | 29 | 34 | 35 | 5-99 | 150-750 | 0.9 | 37 |
| ISTHMUS SLOUGH | 19 | 20 | 19 | 4-85 | 150 | 2.0 | 22 |

A. SHOALING TO 9 FT IN OUTSIDE 75 FT OF QUARTER.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 18588 NM 47/99

COQUILLE RIVER CHANNEL

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JULY 1999 AND SURVEYS TO JULY 1999

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | MIDDLE HALF OF CHANNEL | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
| A ENTRANCE CHANNEL | 14 | 14 | 12 | 7-99 | 200 | 0.33 | 13.0 |
| ENTRANCE CHANNEL TO PORT DOCK (43°07'15.9"N, 124°24'50.5"W) | 13 | 13 | 7 | 6,7-99 | 200 | 0.63 | 13.0 |
| THENCE TO END OF PROJECT | 12 | 13 | 14 | 4-99 | 150 | 0.38 | 13.0 |

A. THE ENTRANCE CHANNEL IS SUBJECT TO FREQUENT CHANGES AND THE DEEPEST WATER IS NOT ALWAYS ON THE RANGE.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION